IN THE CLAIMS:

1-4 (Canceled)

5. (Currently Amended) ~~The~~ A fault detecting method for a semiconductor integrated circuit ~~according to claim 3, additionally~~ comprising:

providing a fault list comprising information identifying physical sites on a physical layout of a semiconductor integrated circuit where a possible fault is likely to occur, and information related to reducing faults;

detecting faults in accordance with the fault list in a semiconductor integrated circuit to which said fault list corresponds;

weighting possible faults at physical sites according to their likelihood to achieve a specific fault coverage, thereby creating weighted possible faults;

providing fault coverage by identifying a fault coverage value from the sum of the weighted fault coverage of detected weighted possible faults,

wherein said fault list is a weighted fault list with respect to all faults listed therein, and said fault coverage is a rate of fault coverage detected by the weighted fault list.

6. (Previously Presented) The fault detecting method for a semiconductor integrated circuit according to claim 5, additionally comprising arranging said possible faults as ordered possible faults and then weighting said ordered possible faults.

7. (Currently Amended) The fault detecting method for a semiconductor integrated circuit according to claim [4] 8, additionally comprising obtaining mask information from a layout device for laying out a semiconductor integrated circuit to which the fault list corresponds, wherein said order of possible faults is based on the mask information.

8. (Previously Presented) A fault detecting method for a semiconductor integrated circuit comprising:

providing a fault list comprising (a) information identifying physical sites on a physical layout of a semiconductor integrated circuit where a possible fault is likely to occur, and (b) information required to reduce faults;

detecting faults in accordance with said fault list in a semiconductor integrated circuit to which said fault list corresponds;

calculating a density of a mask pattern corresponding to mask information obtained from a layout device for laying out the semiconductor integrated circuit to which said fault list corresponds;

calculating a likelihood of occurrence for each possible fault depending on the density of the mask pattern;

weighting the arranged possible faults according to said calculated likelihoods of occurrence;

arranging the possible faults in the fault list in order according to their likelihood of occurrence to create an ordered fault list; and

detecting faults in said semiconductor integrated circuit by using the ordered fault list,

wherein the fault list comprises data about a likelihood of a fault occurring at a physical site.

9. (Currently Amended) The fault detecting method for a semiconductor integrated circuit according to claim [4] 8, additionally comprising:

considering reliability data based on records of past use of cells or functional blocks of a semiconductor integrated circuit to which the fault list corresponds; and

determining said likelihoods of occurrence of defects based on said reliability data.

10. (Previously Presented) The fault detecting method for a semiconductor integrated circuit according to claim 6, additionally comprising:

defining a required fault list by deleting from the fault list possible faults that are not required to achieve a specified fault coverage, in an order of unlikelihood of such possible faults, said specific fault coverage being a probability of detecting faults in a semiconductor integrated circuit to which said fault list corresponds; and

detecting, according to said required fault list, remaining faults in such semiconductor integrated circuit; and

calculating a fault coverage simultaneously with said detecting.

11. (Previously Presented) The fault detecting method for a semiconductor integrated circuit according to claim 6, additionally comprising:

calculating fault coverage simultaneously with detecting possible faults in such semiconductor integrated circuit; and

terminating calculating and detecting when a specific fault coverage has been reached, said specific fault coverage being a probability of detecting faults in such semiconductor integrated circuit.

12. (Canceled)

13. (Currently Amended) The fault detecting method for a semiconductor integrated circuit according to claim ~~12~~ 19, additionally comprising:

omitting from the fault list possible faults having a specified low probability of occurrence to define a remaining part of the fault list, wherein

said again detecting faults comprises detecting faults according to the remaining part of the fault list.

Claims 14-18 (Canceled)

19. (Previously Presented) A fault detecting method for a semiconductor integrated circuit comprising:

first detecting faults in a semiconductor integrated circuit to create a detection result;

combining said detection result with (a) information about physical sites on a physical layout of the semiconductor integrated circuit to which said fault list corresponds where a possible fault is likely to occur and (b) information required to reduce faults, to create a fault list;

again detecting faults according to said fault list in such semiconductor integrated circuit;

calculating a density of a mask pattern corresponding to mask information obtained from a layout device for laying out the semiconductor integrated circuit to which said fault list corresponds;

calculating a likelihood of occurrence for each possible fault depending on the density of the mask pattern;

weighting the arranged possible faults according to said calculated likelihoods of occurrence;

arranging the possible faults in order according to their likelihood of occurrence to create an ordered fault list; and

second detecting possible faults in a semiconductor integrated circuit using the ordered fault list,

wherein the fault list comprises data about a likelihood of a possible fault occurring at a physical site.

20. (Currently Amended) The fault detecting method for a semiconductor integrated circuit according to claim ~~15~~ 19, further comprising:

providing a database and storing therein reliability data based on records of past use of cells or functional blocks of a semiconductor integrated circuit to which the fault list corresponds; wherein

said likelihoods of occurrence are according to said reliability data in the database.

Claims 21-59 (Canceled)